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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/042,799

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Frank Leymann

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SUITE 2022

BOCA RATON, FL 33487

EXAMINER

TODD, GREGORY G

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/042,799	<b>Applicant(s)</b> LEYMANN ET AL.	
	<b>Examiner</b> GREGORY G. TODD	<b>Art Unit</b> 2457	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 09 February 2011.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 15-29 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 15-29 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)         | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)         | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Response to Amendment***

1. This office action is in response to applicant's amendment filed, 09 February 2011, of application filed, with the above serial number, on 09 January 2002 in which claims 15 and 20-25 have been amended. Claims 15-29 are pending in the application. This application has been taken over by Examiner Todd from Examiner Gold.

### ***Claim Rejections - 35 USC § 101***

2. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 25-29 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claim 25 is a computer program product comprising a "computer readable storage medium" having stored therein computer usable program code for operating a computer system. The specification does not provide support as to what type of program product and what type of "storage medium" are used and thus the product comprising a storage medium can include signals per se. As such, the claim is not limited to *non-transitory*, statutory subject matter and is therefore non-statutory. Alternative statutory language includes, but is not limited to, "non-transitory storage medium", "computer readable recording medium", "computer readable storage device", "computer readable memory", etc. While Applicant cites Ex parte Mehta, every

application is different with every specification of every application being different; as such it is not clear as to the background of the specification support of the term storage medium. In this case, there is no support in the specification for any medium, and as such, following more recent guidelines than Ex parte Mehta being published, a 'storage medium' still is upheld as being transitory when the specification lacks support.

Claims 26-29 are rejected as being dependent upon the rejection of claim 25 as they also fail to cure deficiencies noted in these claims.

Claims 20-24 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

The "system" claim is not to a process, machine, manufacture, or composition of matter. The claimed element's "server", "module", "component", "logger", "comparison unit" and "element", etc are non-structural limitations, and in light of the specification these are not disclosed as being hardware. Therefore, the claimed subject matter as a whole fails to fall within the definition of a process, machine, manufacture, or composition of matter, patentable eligible category subject matter. Further illustrating such system as being software is the removal of the term 'hardware' from the claim preambles.

In order to expedite a comprehensive examination of the instant application, the claims rejected under 35 U.S.C.101 (non-statutory) above, are further rejected as set forth below in anticipation of applicant amending these claims to place them within the admissible statutory categories of invention.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 15, 19, 20, 24, 25, and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yoakum et al (hereinafter "Yoakum", 6,421,674), in view of Graham, U.S. Patent No. 7,730,019, further in view of Arora et al (hereinafter "Arora", 6,859,834).

As to claim 15, Yoakum teaches a method of operating a computer system, wherein the computer system comprises an application client, a first application server configured to process requests of the application client, a second application server configured to process requests of the application client, and a database shared by the first and second application servers, the method comprising:

a first application server (col. 4, line 23, Yoakum discloses a first proxy server 208);

receiving, by the first application server, a request from the application client to the first application server (col. 4, lines 23-27, Yoakum discloses messages, that include lookup requests, received from the gateway at the proxy server);

forwarding, by the first application server, the request to the second application server (col. 4, lines 32-43, Yoakum discloses the request forwarded to second proxy server 210);

receiving, by the second application server, the request from the first application server (col. 4, lines 43-47, Yoakum discloses the second proxy server receiving the message and returning a response to the first proxy server);

generating, by the second application server, a response to the request (col. 4, lines 43-47);

forwarding, by the second application server, the response to the first application server (col. 4, lines 43-47);

receiving, by the first application server, the response from the second application server (col. 4, lines 43-50, Yoakum discloses the first proxy server receiving the message from the second proxy server); and

forwarding, by the first application server, the response to the application client (col. 4, lines 49-51, Yoakum discloses the gateway receiving the response from the first proxy server).

Yoakum fails to teach the limitation further including detecting by the first application server that a shared database is not accessible and the first and second servers performing various actions while the database is not accessible.

However, Graham teaches the use of a data analysis system detecting that a database is not accessible and the handling of an unreadable database (col. 4, lines 43-51, col. 11, lines 21-22, col. 11, line 60 – col. 12, line 11). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Yoakum in view of Graham to detect, by the first application server, that a database is not accessible and the first and second servers performing various actions while the database is not

accessible. One would be motivated to do so because it would be more efficient for a server to detect that a database is not accessible by it than to use a separate means for that function.

Yoakum and Graham fail to explicitly teach accessing, by the second application server, the shared database. However, the use and advantages for using such a system is well known to one skilled in the art at the time the invention was made as evidenced by the teachings of Arora. Arora teaches, in a similar art of application server request failover, a first and second application server, in communication with a single, shared database and in communication with each other, wherein when an application server request fails for any reason, including a broken network connection, the request is sent to another application server in the cluster which can access the same database (at least Fig. 2A, 15; col. 8:15-29; 16:55-17:43). Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to incorporate the use of Arora's system with Yoakum and Graham. Motivation to do so would have been as Arora teaches it being very well known in the art for a cluster of application servers to share and use the same database(s), and when an application server is still operating but having a broken network connection to the shared database(s), it would be more efficient to have the operating application server access the shared database than to wait for an unexpected time period for the network connection to become operational again.

As per Claim 19, Yoakum, Graham, and Arora teach the method of claim 15, wherein the second application server generates the response to the request using the

database while the database is not accessible by the first application server (Yoakum, col. 4, lines 23-51, Graham, col. 4, lines 43-51, col. 11, lines 21-22, col. 11, line 60 – col. 12, line 11).

Claims 20, 24, 25, and 29 do not teach or define any new limitations above claims 15 and 19 and therefore are rejected for similar reasons.

5. Claim 16-18, 21-23, and 26-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yoakum, Graham, and Arora, further in view of Holmberg, U.S. Patent No. 6,247,141.

As to claim 16, Yoakum, Graham, and Arora teach the method of claim 15.

Yoakum, Graham, and Arora do not explicitly teach wherein the response is received, from the second application server, to an input queue of the first application server. However, Holmberg teaches a queue with the backup and primary servers (col. 6, lines 10-18, 29-40). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Yoakum and Graham in view of Holmberg wherein the response is received, from the second application server, to an input queue of the first application server. One would be motivated to do so because passing the queue from one server to another server is an efficient and well known way, as Holmberg teaches, to organize queues and requests in server clusters.

As per Claim 17, Holmberg teaches the method of claim 16, further comprising transferring the response from the input queue of the first application server to an output queue of the first application server (col. 6, lines 10-18, 29-40).



As to claims 18, Yoakum, Graham, and Arora teach the method of claim 15.

Yoakum, Graham, and Arora do not explicitly teach wherein the response is received, from the second application server, into an output queue of the first application server. However, Holmberg teaches a queue with the backup and primary servers (col. 6, lines 10-18, 29-40). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Yoakum and Graham in view of Holmberg wherein the response is received, from the second application server, into an output queue of the first application server. One would be motivated to do so because passing the queue from one server to another server is an efficient and well known way, as Holmberg teaches, to organize queues and requests in server clusters.

Claims 21-23 and 26-28 do not teach or define any new limitations above claims 16-18 and therefore are rejected for similar reasons.

### ***Response to Arguments***

6. Applicant's arguments with respect to claims 15-29 have been considered but are moot in view of the new ground(s) of rejection.

Further, Applicant argues, in substance, the amended limitations of the claims. While the previous claims did not make it clear that the first and second application servers accessed and shared the same database (outside of the preamble), the amended claims do clearly recite the first and second application servers using a shared database, a critical feature of the invention. As such, while Yoakum and Graham teach the remaining features of the claims, Arora teaches it being well known for first

and second application servers of a server cluster to be accessing the same database(s). When combined with Yoakum and Graham, it is obvious that such first and second application servers would communicate directly with each other and reroute the request to access the same database when a network connection to the database by a single application server would fail in a system where application server affinity to maintain session state is of importance.

When reviewing a reference the applicants should remember that not only the specific teachings of a reference but also reasonable inferences which the artisan would have logically drawn therefrom may be properly evaluated in formulating a rejection. In *re Preda*, 401 F. 2d 825, 159 USPQ 342 (CCPA 1968) and *In re Shepard*, 319 F. 2d 194, 138 USPQ 148 (CCPA 1963). Skill in the art is presumed. In *re Sovish*, 769 F. 2d 738, 226 USPQ 771 (Fed. Cir. 1985). Every reference relies to some extent on knowledge of persons skilled in the art to complement that which is disclosed therein. In *re Bode*, 550 F. 2d 656, 193 USPQ 12 (CCPA 1977).

In this case, the claims disclose simply rerouting a request from one node (first application server) to another node (second application server) when a network connection (to the database) goes down. While the claims disclose application servers and a shared database, this does not change the functionality of the invention from any other ordinary node request being rerouted to another node as the application server and database are not adding any specific functionality to the claims. As such, to promote compact prosecution, while the Office Action is non-Final as a consideration to the Applicant for the application being under a new Examiner, it is recommended to

narrow the claims to more specifically recite the current claimed invention of re-routing requests around a network link failure.

Applicant additionally argues unreadable is different from not accessible. This is not persuasive. Further, Arora clearly teaches that such 'not accessible' database being when the network link is non-operational and the database is not reachable.

Applicant's arguments filed 09 February 2011 have been fully considered but they are not persuasive. The 101 Rejection is maintained. See revised Rejection above (Applicant case argument of Ex Parte Mehta is antiquated in view of more recently published guidelines concerning CRM claims).

### ***Conclusion***

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Applicants are requested to consider the prior art references for relevant teachings when responding to this office action:

U.S. Pat. No. 6,711,606 to Leymann et al.

U.S. Pat. No. 6,625,141 to Glitho et al.

U.S. Pat. No. 6,148,307 to Burdick et al.

U.S. Pat. No. 5,978,577 to Rierden et al.

U.S. Pat. No. 6,801,927 to Smith et al.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to GREGORY G. TODD whose telephone number is (571)272-4011. The examiner can normally be reached on Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ario Etienne can be reached on (571)272-4001. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Gregory G Todd/  
Examiner, Art Unit 2457